

Bugging out: Intern learns more about Alaska than just lack of igloos

by Charlotte Hockin

When I accepted an internship in Alaska to study insects, I thought all my Christmases had come at once. I left England and a rather “tropical” 73 degrees in early autumn for almost 12 weeks in an Alaska winter wonderland.

The Kenai National Wildlife Refuge carried out a biological survey of its entire 2 million acres and one particular aspect within the project was an entomological survey. It was my job to assist Matt Bowser in the daunting task of sorting and identifying over 15,000 specimens, a number that is still in the process of being counted.

In Britain many of our insects and plants are commonly found when the viewer is out walking. A large number have already been described thanks to an explosion of naturalists in the late 1800 and early 1900s. This is the reason I immediately found Alaska entomology an exciting field to be a part of due to the sheer number of new and intriguing insects.

I soon developed a greater appreciation of flies and (dare I say it?) even a love for spiders. Perhaps that’s too strong a word but I do feel a pang of compassion for the unfortunate orb weavers sporting ichneumon larvae parasites on their abdomens. Likewise for the unfortunate slugs and snails who ended up as a tasty snack for a particular marsh fly (*Sciomyzidae*) which was present in much of our insect samples.

I soon learned more predator and host associations by simply observing species numbers from particular areas. For instance, in a spruce woodland sample there were both large numbers of the fungus gnat (*Mycetophilidae*) and the wasps (*Diapriidae*). The gnat’s larvae feed and burrow inside fungi until they pupate and hatch out as adults. The Diapriids hover around the fungi waiting to inject their eggs into the grubs, so that

their own larvae can feed. It’s a system that is species specific and has evolved over thousands of years. Finding these sorts of specimens and quantities indicates an efficient predator/host relationship and more importantly a healthy ecosystem.

Once the initial job was completed, I had the opportunity to investigate insects that overwinter under the snow, such as springtails (*Collembola*), ground beetles (*Carabidae*) and various soil mites (*Acari*). This was especially interesting for me because in England the snow generally melts after a few days and so our insects haven’t needed to evolve survival techniques such as antifreeze in the blood. They simply migrate to warmer climates, overwinter as pupa or hibernate.

My internship here has been extremely beneficial in many respects. I’ve had the opportunities to focus on specific taxonomic groups and learn more about their biology and identification characteristics. I’ve also developed my curator skills and learned new techniques such as pinning and preserving which will come in handy when I eventually become a qualified museum curator.

Just as importantly, I have had the chance to experience living in a developing city and to briefly be a part of its community, which I found to be extremely welcoming and immediately made many friends. I will be sad to leave but when I return home for Christmas I’m looking forward to showing friends and family my photos of Kenai and Soldotna so they can see that Alaskans do not all live in igloos.

I would like to thank John Morton, Matt Bowser and all at the National Kenai Wildlife Refuge for enabling me to work here and fully enjoy the experience.

Previous Refuge Notebook columns can be viewed on the Web at <http://www.fws.gov/refuge/kenai/>.